STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Application of AMERICAN	:	
TRANSMISSION COMPANY LLC for a	:	
Certificate of Public Convenience and	:	
Necessity, pursuant to Section 8-406.1 of	:	No. 11-0661
the Illinois Public Utilities Act, to	:	
construct, operate, and maintain a new	:	
345,000 volt electric transmission line in	:	
Lake County, Illinois	:	

Direct Testimony of

Jamal Khudai

Manager of Economic Planning American Transmission Company

1 Q. Please state your	name and business	address
------------------------	-------------------	---------

- 2 A. My name is Jamal Khudai. My business address is W234 N2000 Ridgeview Parkway
- 3 Court, Waukesha, Wisconsin.
- 4 Q. By whom are you employed?
- 5 A. I am employed by ATC Management Inc., the corporate manager of American
- 6 Transmission Company LLC. In my testimony, I will refer to these entities collectively
- 7 as "ATC."
- 8 Q. How long have you been employed by ATC?
- 9 A. For eight years, since September, 2003.
- 10 Q. What is your present position with ATC?
- 11 A. I am a Manager of Economic Planning.
- 12 Q. How long have you held that position?
- 13 A. I have been in that position since April 2009.
- 14 Q. What are your responsibilities for ATC?
- 15 A. I manage ATC's economic planning group that has the following responsibilities:
- Conducting scenario analyses to ensure recommended transmission system
- 17 upgrades are robust, in light of significant uncertainties in demand and energy
- growth, new generation, renewable portfolio standards (RPS), demand side
- management (DSM), fuel prices, and environmental regulations.
- Coordinating with Midwest ISO (MISO), generation entities, regulatory agencies,
- local load serving utilities, and other electric transmission providers to obtain

22		necessary inputs into the modeling process in accordance with the requirements of
23		FERC Order 890.
24		• Monitoring market congestion and developing cost-effective mitigation projects.
25		Performing system evaluations utilizing various industry standard tools like
26		Power Flow, Contingency Analysis,
27		• Transfer Analysis, and Security Constrained Economic Dispatch (SCED).
28	Q.	What other positions have you held at ATC?
29	A.	I began working at ATC in 2003 as a Senior Transmission Planning Engineer and was
30		promoted to Manager of Transmission Planning for the Major Projects Group in 2006. I
31		moved to my present position in 2009.
32	Q.	Prior to joining ATC what did you do?
33	A.	I worked for Commonwealth Edison Company in Illinois for six years as a Principal
34		Distribution Planning Engineer and a Senior Transmission Planning Engineer.
35	Q.	Please describe your educational background.
36	A.	I have a Bachelor of Engineering degree in Electrical Engineering from Mehran

- 39 Q. Aside from that, have you taken any additional courses, classes, or seminars?
- 40 A. I have taken numerous classes and attended many seminars related to aspects of electric 41 utility engineering, including training in performing power flow analyses using PSS/E 42 developed by Siemens, and Security Constrained Economic Dispatch using PROMOD,

University of Engineering and Technology in Sindh, Pakistan, and a Master of Science

degree in Electric Power from Rensselaer Polytechnic Institute in Troy, New York.

37

- 44 Q. Please describe what your responsibilities have been in relation to the proposed Pleasant
- 45 Prairie to Zion Energy Center transmission line.
- 46 A. ATC's economic planning group, under my direction and supervision, has analyzed the
- 47 congestion on the ComEd-ATC interface, developed a cost-effective solution, and tested
- it against alternatives using a variety of assumptions about future economic scenarios.
- 49 Q. What is the purpose of your testimony?
- A. The purpose of my testimony is to provide a general description of and background for
- 51 the project, explain the economic analysis of the project, and to describe the basis for the
- data provided to Dr. Karl McDermott for his analysis of the effect of the proposed project
- on the development of a competitive market for electricity and savings for Illinois
- 54 customers.

- 55 Q. What is attached to your testimony?
- A. Attached to my testimony, marked as ATC Ex. 1.1, is a Planning Analysis containing
- figures, data, and analysis on which much of my testimony will be based. This Planning
- Analysis was prepared under my direction and control, both for ATC's internal
- management and for regulatory approvals. I will refer to portions of this document in my
- testimony where greater detail may be useful. I note that the Planning Analysis contains
- Critical Energy Infrastructure Information, as that is defined in the federal regulations,
- and therefore we have produced separate public and confidential versions.

American Transmission Company

- Q. Please describe the applicant, American Transmission Company.
- 65 A. ATC, in 2001, became the first multi-state, transmission-only public utility. ATC owns
- transmission facilities in four states (Illinois, Michigan, Minnesota, and Wisconsin).

67	ATC was	certified as a	public uti	ility in the	State of I	llinois i	n ICC D	ocket No.	01-0142.

- ATC is essentially owned by its customers: the utilities, municipals, and coops that
- 69 contributed their transmission assets to form ATC. Since 2001, ATC has built
- approximately 530 miles of new transmission lines.
- ATC is a transmission owning member of the Midwest Independent Transmission
- 72 System Operator, or MISO, and an associate member of PJM Interconnection LLC, or
- PJM. ATC's rates are regulated by the Federal Energy Regulatory Commission; the
- siting of its new facilities is regulated by state commissions.

The Pleasant Prairie to Zion Energy Center Project

- 76 Q. Generally, what is the proposed Pleasant Prairie to Zion Energy Center (PLP-ZEC)
- 77 transmission line?

68

- A. We are proposing a new single circuit, 345-kV transmission line connecting ATC's
- 79 Pleasant Prairie substation in Wisconsin to the existing ComEd substation in Illinois
- called Zion Energy Center substation.
- Q. Does the PLP-ZEC line need commission approval from another state?
- 82 A. Yes, the Wisconsin portion of the line is under the jurisdiction of the Public Service
- Commission of Wisconsin. ATC will be making an application to the PSCW for a
- Certificate of Public Convenience and Necessity analogous to the approval ATC seeks
- 85 from this commission.
- 86 Q. What is the purpose of the proposed project?
- 87 A. The transmission system of the Southeastern Wisconsin Northern Illinois study area is
- 88 in need of infrastructure improvement to enhance the market economic performance for
- Wisconsin, Illinois and the region. There has been chronic historical market congestion,

in both PJM and MISO markets, of thousands of hours each year and there is forecasted transmission congestion in the study area. The Pleasant Prairie to Zion Energy Center 345-kV project was developed to provide benefit to customers and provide for a more competitive electric market by relieving congestion in the study area, while allowing the most economic dispatch of generation and providing additional reliability related benefits.

Q. What is meant by "congestion" on transmission lines?

90

91

92

93

94

95

- A. Congestion means the denial, by the transmission system operator, of requested
 transmission transactions due to inadequate transmission transfer capacity. Congestion
 on transmission lines prohibits cheaper generation from getting into the market on the
 other side of the congested interface. In addition, but for safeguards such as the
 Independent Market Monitor, congestion could facilitate the attempt of a particular seller
 to exercise market power.
- 103 Q. How does congestion on transmission lines affect the competitive market for electricity?
- A. Energy is sold in the market on a Day Ahead and Real Time basis, with the most costeffective generators being dispatched first. However, transmission constraints can alter
 the dispatch sequence when congestion prevents cost effective energy from getting to the
 loads that need to be served. Projects that relieve congestion will allow electric utilities to
 import less-expensive power on transmission lines when available, and also to sell power
 to higher-cost regions during some hours.
- 110 Q. How much congestion has there been on the lines connecting ATC to ComEd in recent 111 years?

A historical indicator of economic impact is the MISO Market Constraint data. The 345-kV constraint related data in Table 1 reflects the increasing congestion over the past 3 years. The data is shown in hours of congestion. The hours show the amount of time during the year that the congestion occurs for the relevant constraints. Further detail pertaining to this information can be found in Section 2.0 of the Planning Analysis, ATC Ex. 1.1.

A.

The recent project to increase the rating of the existing Pleasant Prairie - Zion 345-kV line completed in March 2011 is a complementary project to get some interim congestion relief in the short term and better interface performance in the long term. However, market data and analytical studies indicate that congestion within the corridor may have shifted to the 138-kV system following the upgrade of the Pleasant Prairie – Zion 345-kV line.

Also, According to the MISO State of the Market Report, Pleasant Prairie – Zion is one of the most frequently activated market-to-market constraints on the MISO system. Specifically, the IMM stated that "the most common flowgates for market-to-market coordination are those that limit flows from west-to-east, including Pleasant Prairie – Zion." Please see Planning Analysis Section 2.1 for further discussion and details.

Further, according to the PJM 2011 Quarterly State of the Market Report, in the first quarter of 2011 the total congestion costs related to the Pleasant Prairie to Zion 345-kV line persisted and totaled \$2.5 million. Please see Planning Analysis section 2.2 for further discussion and details.

Year	Day Ahead Hours of Congestion	Real Time Hours of Congestion
2011 (through August)	2,070	341
2010	3,052	571
2009	906	168
2008	448	144

138

139

140

141

142

143

144

145

133

134

136 Q. How will the proposed project relieve the congestion which is common on the existing lines?

A. ATC analyzed the congestion in this corridor within its PROMOD analysis. It was determined that the addition of PLP-ZEC relieved the congestion within this corridor in all study years and all six future economic scenarios studied. The tables below show the impact on shadow price and hours bound. Table 2 provides information on the impact of PLP-ZEC on the corridor for the 2015, 2020 and 2026 PROMOD study years. Further detail pertaining to this data can be found in Section 8.0 of the Planning Analysis report.

Table 2: 2015, 2020 and 2026 PROMOD Analytical Congestion

	Southeast Wisconsin - Northeast Illinois Interface			
Study Year & Future	No PLP-ZEC Hours of Congestion	With PLP-ZEC Hours of Congestion		
2015	1,217	0		
2020 Robust Economy	532	0		
2020 Green Economy	361	0		
2020 Slow Growth	3,657	0		
2020 Regional Wind	63	0		
2020 Limited				
Investment	3,365	0		
2020 Carbon	1,479	0		

Constrained		
2026 Robust Economy	971	0
2026 Green Economy	381	0
2026 Slow Growth	3,922	0
2026 Regional Wind	96	0
2026 Limited		
Investment	3,622	0
2026 Carbon		
Constrained	1,000	0

147

150

151

152

153

154

155

156

157

158

159

Summary of Economic Analysis and Results

- 148 Q. Please summarize the economic analysis you performed to analyze the PLP-ZEC project.
- 149 A. We used an industry accepted methodology for analyzing potential economic projects.
 - First, we defined six plausible "futures," or long-term economic scenarios intended to describe widely variable conditions. While we do not actually attempt to predict which of these futures is most likely to occur, if the project performs well in multiple futures, we can have a high degree of confidence that it will provide benefits to customers despite the uncertainty of what may happen years from now.

Second, we analyzed energy-cost savings using PROMOD, a computer market simulation tool. While PROMOD can be used to generate data for a variety of metrics for analyzing projects, for calculating benefits in Illinois, we used the load-weighted locational marginal prices, which is appropriate for a market-based system like Illinois.

- Q. What is the Strategic Flexibility methodology, and how is it used?
- A. Strategic Flexibility is an analytical approach that assists organizations in making major investment decisions in an uncertain environment. The premise of Strategic Flexibility is that, because we cannot know the future, major projects should be tested against a range of plausible futures. These plausible futures are to "bound" the range of plausible

outcomes, and not to identify the most likely future. The project is tested against each of the futures and should be chosen only if it is successful in most of the futures or if the risks inherent in the futures in which the project is not successful can be mitigated. The objective is to identify projects that are robust across a range of plausible futures.

Working with stakeholders in an open and collaborative process, ATC developed six plausible futures and coordinated with the Midwest ISO, which was developing future economic scenarios of its own.

ATC built up the futures by identifying the variables or drivers that would most impact the results of a transmission project like PLP-ZEC (such as load and energy growth, generation retirement and expansion, fossil-fuel costs, use of renewable energy, increased environmental regulation, Renewable Portfolio Standards, and MISO RGOS/MVP transmission overlays) and by determining how those drivers would behave in each scenario. Futures were specified for 2020 and 2026. The "plausible futures" were designed to describe the possible market conditions that could exist in 2020 and 2026. Further details on the drivers, their ranges, and the values used for a particular future are provided in Section 5.2.5 Futures Matrices in the Pleasant Prairie to Zion Energy Center Planning Analysis document.

- Q. Please describe the six futures you considered.
- 182 A. For model year 2020, and 2026, the following futures were considered:

Robust Economy Future

High energy and peak-demand rates of growth characterize this future because the economy recovers and expands vigorously resulting in higher energy consumption, fewer

coal plant retirements and generation additions. In addition, a vigorous economy allows Wisconsin to increase its Renewable Portfolio Standard to 20% increasing renewable generation inside and outside the state. A 765-kV transmission overlay developed in MISO's Regional Generator Outlet Study is included in the model.

Green Economy Future

In this future the economy experiences increased investment and growth due to policy initiatives like enhanced Renewable Portfolio Standards and carbon regulations. Energy and peak demand grow with energy growing faster than peak, coal retirements increase and the increased need for energy in the green economy is met by considerable additional wind power inside and outside ATC. The transmission overlay included was a 345-kV overlay from MISO's Regional Generator Outlet Study.

Slow Growth Future

Energy and peak demand grow at a slower rate in this future due to a sluggish economy inside and outside ATC. Some smaller, older coal-fired units within ATC are retired for economic reasons, new generation is not built and Wisconsin's Renewable Portfolio Standard remains at 10%. A smaller transmission overlay is included in the model.

Regional Wind Future

In this future the potential of the Upper Midwest to produce and transfer its full potential of wind energy is realized. ATC and regional energy and peak demand growth are at higher levels and substantial amounts of older, smaller coal plants are retired. This combination causes the need for new generation and much of that is in the form of wind,

with Wisconsin's Renewable Portfolio Standard at 20%. A larger transmission overlay, the 765kV overlay from MISO's Regional Generator Outlet Study, is included.

Limited Investment Future

The main driver of this future is reduced capital investment in new energy infrastructure, especially new baseload generation. There is less need for such investment because energy and peak-demand growth is modest within ATC and MISO due to an economy that is not growing at a robust rate. There are limited generator additions or retirements within ATC and Wisconsin's Renewable Portfolio Standard remains at 10%. Regional wind development is also at a relatively low level and the most limited transmission expansion option, Overlay Light, is included in the model.

Carbon-Constrained Future

The basic premise of this future is that carbon emissions must be reduced due to federal regulation, either a cap-and-trade system specifying increasingly stringent emissions levels or a direct tax on carbon emissions. Energy and peak-demand growth inside and outside ATC are at low levels due to demand reduction and energy efficiency. Many smaller, older coal plants within ATC are retired and generator additions with ATC are mainly additional wind facilities. The transmission expansion option included is a local 345kV overlay from MISO's Regional Generator Outlet Study.

More information on all these futures can be found in the PLP-ZEC Planning Analysis, Section 5.2.4.

Q. Please describe the PROMOD tool you used.

- 229 A. PROMOD is a security-constrained economic dispatch computer simulation program 230 developed by NewEnergy Associates, now known as Ventyx. The program simulates 231 both the electric generation and transmission systems. It determines the least-cost 232 generation dispatch over a large area for every hour while simultaneously respecting all 233 known transmission constraints (flowgates). This is the same approach that Locational 234 Marginal Price (LMP) markets, like the MISO and PJM markets, use to dispatch 235 generation. In short, PROMOD simulates the LMP market. As a result, PROMOD can 236 be used to help evaluate the cost-effectiveness of transmission projects, like PLP-ZEC, in 237 a market environment. All of the transmission and generation within MISO and PJM 238 were simulated in PROMOD for the PLP-ZEC analysis.
- Q. How did you use PROMOD to analyze the PLP-ZEC line?
- A. To analyze a project like PLP-ZEC using PROMOD, a case is developed without the new project and run for a given time period or year, using the assumptions corresponding to a particular future economic scenario. The same case is then run again with the primary difference being the addition of the new project. The cost difference is then calculated between the cases to determine the incremental value to customers. This same process was done for all six of the futures.
- Q. What study assumptions did you make in using PROMOD?
- A. ATC began with PROMOD models developed by MISO and made numerous
 assumptions based on the year of the study and the future that was being studied. To
 provide multiple data points from which to do a Present Value calculation, PROMOD
 simulations were done for 2015 and for each of the futures described above for a 2020
 and 2026 model. Key study assumptions include energy growth rates, generation

252		retirements and additions, environmental regulations, coal and natural gas prices and the
253		transmission overlay that exists. For a detailed description of the PROMOD study
254		assumptions and methodology, please refer to Appendix E of the Planning Analysis.
255	Q.	Please describe the LLMP metric.
256	A.	LLMP savings measure the difference (with and without the proposed project) in LLMP
257		savings across a particular footprint. This metric is appropriate for markets where
258		generation is unbundled from load, and ATC chose to use this metric to evaluate benefits
259		to Illinois.
260	Q.	Is this the same metric that ATC uses to evaluate the market impact of a transmission
261		project like this one in Wisconsin?
262	A.	Not exactly, no. Wisconsin does not have the same type of market system as in place in
263		Illinois, as Wisconsin is more of a traditionally regulated market. In Wisconsin, ATC
264		considers an "ATC customer benefit metric" which takes into account the bundled
265		relationship between load and generation and Wisconsin regulations about the treatment
266		of utilities' generator profitability. Essentially, it starts with adjusted production cost and
267		takes into account financial congestion hedges and the treatment of loss refunds in the
268		MISO market. Further monetized values for physical loss reduction savings and
269		insurance benefits are added to the metric.
270	Q.	Given this background, how were the benefits of the PLP-ZEC project estimated?
271	A.	Customer energy cost savings were estimated using the PROMOD model described
272		above, for the years 2015, 2020 and 2026.
273	Q.	Please summarize the results of the economic analysis.

Table 3 clearly shows that constructing the PLP-ZEC transmission line would provide 274 A. 275 significant economic benefits within the State of Illinois in a wide range of futures. The 276 present value (PV) of LLMP savings for the futures typically range between \$670 million 277 and \$2,883 million and are positive in every future. The annual benefits are shown in 278 Tables 5, 6 and 7 in Section 5.1 of the Planning Analysis report for each of the futures for 279 each of the metrics and the savings are positive in all but one of the years and futures 280 studied. Total costs of the project to Illinois customers will range from \$0 to 281 approximately \$3 million. If the project is deemed an MVP in MISO, the costs to Illinois 282 customers will be approximately \$3 million. If the project is not deemed an MVP, the 283 cost will be \$0.

Table 3: Present Value of Aggregate Annual PROMOD Energy Benefits – Illinois Total Load Cost [\$ - Millions - 2010]

Alternative	Robust	Green	Slow	Regional	Limited	Carbon
	Economy	Economy	Growth	Wind	Investment	Constrained
PLP-ZEC	1,827	726	1,354	670	2,883	910

284

285

- Q. Were there other benefits that were not monetized?
- 286 A. Yes, there were a number of reliability based benefits that were not monetized such as
 287 improved local generation stability margins, elimination of permanent Operating Guides,
 288 increased transfer capability, additional infrastructure to better handle multiple
 289 contingency and maintenance events, and ability to enable protection system upgrades.
 - Q. Has ATC's Planning Analysis been submitted to MISO?

291	Α.	No. MISO is evaluating this project as part of their MVP portiono and is performing an
292		independent analysis. We expect to have MISO's final analysis in advance of its
293		publication of MTEP 2011 in December, 2011.
294	Q.	What information did you supply to Dr. McDermott in support of his economic analysis
295	A.	The following information was provided to Dr. McDermott:
296		• Illinois Area Loads from the 2015, 2020, and 2026 PROMOD analysis
297		• Illinois Area Load LMPs from the 2015, 2020, and 2026 PROMOD analysis
298		• Illinois Area Total Load Cost from the 2015, 2020, and 2026 PROMOD
299		analysis
300		• Illinois Area Generation from the 2015, 2020, and 2026 PROMOD analysis
301		• Illinois generator data including dispatch level, unit capacity, unit production
302		cost and dispatch price for select hours from the 2015, 2020, and 2026
303		PROMOD analysis
304	Anal	ysis of Alternatives
305	Q.	What alternatives to the PLP-ZEC transmission line did ATC consider to address the
306		congestion issue?
307	A.	As discussed in Section 3.0 of the Planning Analysis, ATC considered the following
308		alternatives:
309		• PLP-ZEC (this project)
310		Low Voltage Alternative
311	Q.	Were any other possible alternatives eliminated?

312	Α.	res, Arc considered the following alternatives which were subsequently dismissed as
313		described in Section 3.3 "Alternatives Considered but Rejected" of the Planning
314		Analysis:
315		Bain to Zion Energy Center 345-kV Alternative
316		• Racine to Zion Energy Center 345-kV Alternative
317		• Loop-in of the Arcadian to Zion 345-kV line to the Pleasant Prairie Substation
318	Q.	Please describe in more detail the 138-kV system upgrades you considered.
319	A.	The Low Voltage Alternative Transmission Project is a combination of rebuild and uprate
320		efforts of existing 138-kV transmission facilities located in Wisconsin and Illinois. The
321		Low Voltage Alternative consists of modification to the following existing facilities:
322		• Bain to Kenosha 138-kV line (ATC)
323		• Kenosha to Lakeview 138-kV line (ATC)
324		• Lakeview to Zion Dist 138-kV line (ATC to ComEd)
325		• Zion to Waukegan 138-kV line (ComEd)
326		• Bain 345/138 kV transformers (ATC)
327		The Low Voltage alternative has a project cost estimate of \$43,756,489. The cost
328		estimate related to the facility work in Illinois was a "generic facility estimate" and is
329		therefore considered a low cost estimate. Further detail on the Low Voltage Alternative
330		can be found in Section 3.2 of the Planning Analysis report.
331	Q.	Please explain your comparison of the PLP-ZEC line to the 138-kV system upgrades.
332	A.	ATC analyzed the economic and reliability impacts of both the PLP-ZEC line and the
333		Low Voltage Alternative to determine which would provide the most cost effective
334		solution and provide the greatest benefit. The PLP-ZEC project has a total estimated cost

335		of \$28,856,000 and the Low Voltage has a total estimated cost of \$43,756,489. Based on
336		the various performance metrics described in the Planning Analysis and the associated
337		project costs, ATC determined that additional upgrades would need to be made to the
338		Low Voltage Alternative to obtain a comparable performance to a 345-kV based project
339		and that the PLP-ZEC project is the preferred solution.
340	Q.	Could non-transmission alternatives, such as demand side management, effectively
341		eliminate the congestion on the current lines?
342	A.	The data available to ATC does not show that any non-transmission alternative can meet
343		all of these needs and provide all of these benefits in as cost-effective and technically
344		feasible a manner as the PLP-ZEC project. Section 10.0 "Non-Transmission
345		Alternatives" of the PLP-ZEC Planning Analysis provides more detail.
346	Effect	of the Proposed Project on Reliability
347	Q.	Understanding that the PLP-ZEC line is not required to address reliability concerns, what
348		effect will the PLP-ZEC line have on reliability?
349	A.	One of ATC's main organizational purposes is to plan and build transmission facilities to
350		provide for an adequate and reliable transmission system that meets the needs of all
351		transmission users. Although the primary need driver for this project is economics, there
352		are system reliability improvements that provide additional benefits and they are as
353		follows:
354		Generation angular stability margin improvement

• Regional and local transfer capability improvement

356		• Operating guide elimination – Preliminary analysis shows that the following
357		Operating Guides and Special Protection Schemes can be eliminated.
358		o Lakeview – Zion Operating Guide (2008–S–018–E-ATC, "FG 3067").
359		 South Ties Interfaces Standing Operating Guide (2009-S-017-E-ATC).
360		o Zion TDC 282 – Lakeview (L28201) 138-kV Tieline Operation (ComEd
361		SPOG 3-10).
362		o Zion Generation Stability Trip [SPS] (ComEd SPOG 1-3-K).
363		• Increased system contingency robustness for NERC category B and C contingencies.
364		Dynamic reactive support
365		Reduction in steady state losses
366		• Enables system protection improvements
367	Intera	actions with ComEd, MISO, and PJM
368	Q.	What interaction has ATC had with ComEd and PJM regarding the PLP-ZEC project?
369	A.	We have been consulting with both ComEd and PJM for many months, and have been
370		keeping them informed as to ATC's proposal. PJM conducted its own reliability tests to
371		determine whether the addition of the PLP-ZEC line would cause reliability problems
372		within PJM. PJM confirmed that it found no reliability issues related to the PLP-ZEC
373		project.
374		ATC, ComEd, PJM, and MISO are parties to a transmission-to-transmission
375		interconnection agreement filed with the FERC. This agreement describes and governs
376		the points of interconnection between the two utilities and their two regional transmission
377		organizations. ATC has requested an additional point of interconnection with ComEd,

which will be the PLP-ZEC line, with the new point of interconnection being at ComEd's

345-kV Zion Energy Center Substation. ATC and ComEd have entered into a Transmission Upgrade Agreement whereby ATC will pay, in advance, for the work necessary at ComEd's substation, subject to a post-construction true-up of costs.

The Cost of the Project

379

380

381

- What will the proposed project cost to construct?
- A. For our work, we used the figure of \$28,856,000 as the cost to build the project. Since the time our planning studies were complete, some additional work has been done by our engineering and project management teams on more precise construction estimates based on the actual routes chosen.
- 388 Q. Who will pay for the line construction?
- 389 A. ATC will pay for all construction, including work needed by ComEd, as I described 390 above. The precise mechanism by which ATC will recover these costs through its 391 FERC-jurisdictional rates is not completely certain at this point, although the method of 392 cost recovery is not determinative of whether this project, with its demonstrated benefits, 393 should be allowed to proceed. MISO has publicly stated that it is considering the PLP-394 ZEC project as a candidate for MISO-wide cost sharing as a Multi-Value Project (MVP) 395 under the recently revised MISO tariff. However, it is also possible that the project will 396 not qualify as an MVP project, or that the MISO tariff will ultimately be overturned, in 397 which case ATC's transmission customers will bear the cost through rates. ATC intends 398 to proceed with this project regardless of the rate treatment ultimately afforded it.
- 399 Q. Is ATC capable of financing the project without endangering its financial health?

400 A. Yes. ATC's annual capital spending on transmission projects ranges from \$200401 \$400 million and we expect to spend approximately \$3.8 - \$4.4 billion in system
402 upgrades over the next ten years (ATC 2011 Ten Year Assessment). This project
403 represents only 10% of ATC's likely capital budget for 2013, when most of the costs will
404 be incurred. The project poses no significant financial risk to ATC or its customers.

Summary and Conclusion

- 406 Q. Please summarize your conclusions and recommendations.
- 407 A. The construction of the PLP-ZEC transmission line produces significant economic
 408 benefits for Illinois customers in all six of the futures analyzed. This project will also
 409 improve the reliability of the transmission system even though it is not being proposed in
 410 response to a reliability need. No other transmission project is a preferred alternative to
 411 PLP-ZEC. As a result, ATC requests that the Illinois Commerce Commission authorize
 412 construction of the project.
- 413 Q. Does this complete your direct testimony?
- 414 A. Yes.